

What is claimed is:

5 1. A communications system that includes a network of wiring,
a plurality of ports ordinarily used for connection of telephone
equipment to said network, and an interface to a telephone system,
said ports being located in different areas, said network compris-
ing a plurality of 2-wire conductive paths connecting said ports
to said interface, the communications system including a first one
of said ports and a first electronic device (1) located in a first
area, and a second one of said ports and a second electronic device
10 (15) located in a second area, the system further including an
apparatus (2) located in said first area, said apparatus responding
to infrared light signals received from an infrared light transmit-
ter for determining operational modes of said apparatus, said
apparatus being out of range of said light transmitter when said
15 light transmitter is located in the second area, wherein:

a) said second electronic device (15) further includes:

first converting means for converting infrared light
radiation to a first series of electrical impulses,

20 first representing means for representing said first series
of electrical impulses as a second series of electrical impulses,
information content of said second series being substantially the
same as the information content of said first series, substantially
all of the energy of said second series being concentrated at

frequencies above the highest frequency used for communication by
ordinary telephone devices,

first transmitting means, connected to said second one of said
ports, for transmitting said second series of electrical impulses
onto the network, said first transmitting means comprising first
filtering means for presenting a high impedance to signals whose
energy is concentrated at frequencies below the highest frequency
used for communication by ordinary telephone devices, while
allowing said second series of electrical impulses to transmit
substantially unchanged,

b) said first electronic device (1) further includes:

first recovering means, connected to said first one of said
ports, for recovering said second series of electrical impulses
from the network wiring, said first recovering means comprising
second filtering means for presenting a high impedance to signals
whose energy is concentrated at frequencies below the highest
frequency used for communication by ordinary telephone devices,
while allowing said said second series of electrical impulses to
transmit substantially unchanged,

second representing means for representing said second series
of electrical impulses as a third series of electrical impulses,
information content of said third series being substantially the
same as the information content of said second series, and

second converting means for converting said third series of
electrical impulses to infrared light radiation, said second

50 converting means creating a light pattern with substantially the same characteristics as the light pattern created by the infrared light radiation in the second area.

2. A system as defined in claim 1, wherein said first representing means includes:

5 means for creating a weighted average signal, said weighted average signal being a weighted average of the energy level of said first series of electrical impulses over a preceding time period of predetermined length,

10 means for creating a first bi-level signal, said first bi-level signal assuming a high state when the energy level of said first series of electrical impulses exceeds said weighted average signal, said first bi-level signal otherwise assuming a low state,

15 means for suppressing noise by creating a second bi-level signal, said second bi-level signal assuming a high state whenever the energy level of said first series of electrical impulses exceeds said weighted average by a fixed factor at any time over a preceding time period of fixed length, said second bi-level signal otherwise assuming a low state, and

means for providing an RF carrier only when both said first bi-level signal and said second bi-level signal are at the higher of their two said levels.

3. A communication system as defined in claim 1, further comprising a television receiver located in said second area, and

wherein said apparatus (2) in said first area includes means for supplying a first video signal and wherein:

5 a) said first electronic device (1) in said first area further includes:

 receiving means, connected to said apparatus (2), for receiving said first video signal, and

 signal processing means for providing a second video signal,
10 said second video signal having a higher energy level than said first video signal and substantially the same information content as said first video signal, and

 second transmitting means, connected to said first one of said ports, for transmitting said second video signal onto the network,
15 said second transmitting means comprising third filtering means for presenting a high impedance to signals whose energy is concentrated at frequencies below the highest frequency used for communication by ordinary telephone devices, while allowing said second video signal to transmit substantially unaltered;

20 b) the electronic device (15) located in the second area further includes:

 second recovering means, connected to said second one of said ports, for recovering said second video signal from the network,
25 said second recovering means comprising fourth filtering means for presenting a high impedance to signals whose energy is concentrated at frequencies below the highest frequency used for communication

by ordinary telephone devices, while allowing said second video signal to transmit substantially unaltered, and

30 third transmitting means, connected to said television receiver, for transmitting said second video signal to said television receiver.

4. A system as defined in claim 3 wherein said first electronic device (1) further includes means for blocking the energy of said second video signal from transmission to said second representing means.

5. A system as defined in claim 3, wherein:

substantially all of the energy of said first video signal is concentrated at frequencies between 54 Mhz and 72 Mhz,

5 said signal processing means comprises amplification means for amplifying said first video signal, so as to provide said second video signal,

the degree of amplification of said amplification means is variable and manually adjustable, and

10 said second transmitting means includes a 2-conductor cord, the conductors of said cord including one of:

- 1) systematic twists about each other, and
- 2) metallic shielding

for reducing RF radiation emanating from said cord.

6. A communication system as defined in claim 3 wherein:

substantially all of the energy of said first video signal is concentrated at frequencies below 6 Mhz,

said first electronic device (1) further includes a switch with at least first and second settings,

said signal processing means included in said first electronic device (1) comprises RF conversion means for translating said first video signal to provided a translated signal whose energy is concentrated at higher frequencies, and amplification means for amplifying said translated signal to provide said second video signal, said RF conversion means responding to the setting of said switch to determine the frequencies at which the energy of said second video signal is concentrated, substantially all of the energy of said second video signal being concentrated at frequencies between 76 Mhz and 82 Mhz when said switch is at said first setting, and being concentrated at frequencies between 82 Mhz and 88 Mhz when said switch is at said second setting.

7. A system as defined in claim 3 wherein:

said signal processing means included in said first electronic device (1) comprises first RF conversion means for converting said first video signal to a signal with a higher energy level whose energy is concentrated at frequencies below 54 Mhz so as to provide said second video signal, [said second video signal having substantially the same information content as said first video signal.]

said second electronic device (15) includes second RF conversion means for converting signals within an input band to signals whose energy is concentrated at frequencies above 54 Mhz so as to provide a third video signal, said input band covering the frequencies of said second video signal, said third video signal having substantially the same information content as said second video signal,

said third transmitting means connected to said television receiver comprises means for transmitting said third video signal to said television receiver.

8. A system as defined in claim 7 wherein:

said second electronic device (15) further includes adjusting means with at least first and second settings, and

said second RF conversion means responds to the setting of said adjusting means to determine the frequencies at which the energy of said third video signal is concentrated, substantially all of the energy of said third video signal being concentrated within a first output band when said adjusting means is at said first setting, and within a second output band when at said second setting, a width of said first and the width of said second output bands being 6 Mhz, said first output band being adjacent to and below said second output band.

9. A system as defined in claim 7 wherein:

said second RF conversion means comprises means for simultaneously providing both a supplemental video signal and said third video signal, substantially all of the energy of said supplemental video signal falling within a 6 Mhz supplemental band, substantially all of the energy of said third video signal being confined within a 6 Mhz band below and adjacent to said supplemental band, said supplemental video signal having substantially the same information content as said third video signal, and

said third transmitting means connected to said television receiver comprises means for simultaneously transmitting both said third video signal and said supplemental video signal to said television receiver.

10. A system as defined in claim 7 wherein:

substantially all of the energy of said first video signal supplied by said apparatus (2) is concentrated within an initial band above 54 Mhz, the width of said initial band being at least 12 Mhz,

said first RF conversion means comprises means for converting substantially all signals within said initial band to signals at a higher energy level whose energy is concentrated within an intermediate band below 54 Mhz, so as to provide said second video signal within said intermediate band, said intermediate band being equal in width to said initial band,

said second RF conversion means comprises means for converting substantially all signals within said intermediate band to signals whose energy is concentrated within said initial band, so as to provide said third video signal within said initial band,

said initial band being composed of all of the frequencies between one of:

- 1) 60 Mhz and 72 Mhz, and
- 2) 54 Mhz and 72 Mhz.

11. A system as defined in claim 7 wherein:

substantially all of the energy of said first video signal is concentrated at frequencies below 6 Mhz, and

said first electronic device (1) further includes a switch with at least first and second settings, and

said first RF conversion means responds to the setting of said switch to determine the frequencies at which the energy of said second video signal is concentrated, substantially all of the energy of said second video signal being concentrated within a first 6 Mhz intermediate band when said switch is at said first setting, and within a second 6 Mhz intermediate band when said switch is at said second setting, said first intermediate band being adjacent to and below said second intermediate band, and

said second RF conversion means comprises means for converting substantially all signals within a third intermediate band to signals whose energy is concentrated within an output band above 54 Mhz, so as to provide said third video signal within said output

band, said third intermediate band consisting of all frequencies within said first and said second intermediate bands, the width of said output band being equal to the width of said third intermediate band.

12. A system as defined in claim 7 wherein:

said first RF conversion means comprises means for simultaneously providing both a first supplemental video signal and said second video signal, substantially all of the energy of said first supplemental video signal being concentrated within a 6 Mhz supplemental band, substantially all of the energy of said second video signal being concentrated in a 6 Mhz band above and adjacent to said supplemental band, said supplemental video signal having substantially the same information content as said second video signal,

said second transmitting means further comprises means for simultaneously transmitting both said first supplemental video signal and said second video signal onto the network,

said second RF conversion means comprises means for converting substantially all signals within an intermediate band to signals within an output band above 54 Mhz, so as to provide said third video signal and a second supplemental video signal within said output band, said intermediate band consisting of the frequencies within said first supplemental band and within the 6 Mhz immediately above, said second supplemental video signal having substantial-

ly the same information content as said first supplemental video signal, and

said third transmitting means connected to said television receiver comprises means for simultaneously transmitting both said third video signal and said supplemental video signal to said television receiver.

13. A communications system that includes a network of wiring, a plurality of ports ordinarily used for connection of telephone equipment to said network, and an interface to a telephone system, said ports being located in different areas, said network comprising a plurality of 2-wire conductive paths connecting said ports to said interface, the communications system including a first one of said ports and an apparatus (2) located in a first area, said apparatus (2) supplying a first video signal, and a second one of said ports and a television receiver located in a second area, the communications system further comprising:

a) a first electronic device (1) located in said first area including:

receiving means, connected to said apparatus (2), for receiving said first video signal;

first RF conversion means for converting said first video signal to a signal whose energy is concentrated at different frequencies, so as to provide a second video signal, substantially all of the energy of said second signal being concentrated at

frequencies below 54 Mhz, information content of said second video
20 signal being substantially the same as information content of said
first video signal;

amplification means for amplifying said second video signal;
and

first transmitting means, connected to said first one of said
25 ports, for transmitting said second video signal onto the network,
said first transmitting means comprising first filtering means for
presenting a high impedance to signals whose energy is concentrated
at frequencies below the highest frequency used for communication
by ordinary telephone devices, while allowing said second video
30 signal to transmit substantially unaltered;

b) a second electronic device (15) located in said second area
including:

recovering means, connected to said second of said ports, for
recovering said second video signal from said network, said
35 recovering means including second filtering means for presenting
a high impedance to signals whose energy is concentrated at
frequencies below the highest frequency used for communication by
ordinary telephone devices, while allowing said second video signal
to transmit substantially unaltered;

40 second RF conversion means for converting said second video
signal to a signal whose energy is concentrated at higher fre-
quencies, so as to provide third video signal, substantially all
of the energy of said third video signal being concentrated at

frequencies above 54 Mhz, the information content of said third
45 video signal being substantially the same as the information
content of said second video signal; and

second transmitting means, connected to said television
receiver, for transmitting said third video signal to said
television receiver.

14. A system as defined in claim 13 wherein:

said second electronic device (15) further includes adjusting
means with at least first and second settings, and

5 said second RF conversion means responds to the setting of said
adjusting means to determine the frequencies at which the energy
of said third video signal is concentrated, concentrating substan-
tially all of the energy of said third video signal within a first
6 Mhz output band when said adjusting means is at said first
setting, and within a second 6 Mhz output band when at said second
setting, said first output band being adjacent to and below said
second output band.

15. A system as defined in claim 13 wherein:

5 said second RF conversion means comprises means for simul-
taneously providing both a supplemental video signal and said third
video signal, substantially all of the energy of said supplemental
video signal falling within a 6 Mhz supplemental band, substantial-
ly all of the energy of said third video signal being concentrated
within a 6 Mhz band below and adjacent to said supplemental band,

said supplemental video signal having substantially the same information content as said third video signal, and

10 said second transmitting means connected to said television receiver comprises means for simultaneously transmitting both said third video signal and said supplemental video signal to said television receiver.

16. A system as defined in claim 13 wherein:

5 substantially all of the energy of said first video signal supplied by said apparatus (2) is concentrated within an initial band above 54 Mhz, the width of said initial band being at least 12 Mhz,

10 said first RF conversion means comprises means for converting substantially all signals within said initial band to signals whose energy is concentrated within an intermediate band below 54 Mhz, so as to provide said second video signal within said intermediate band, said intermediate band being equal in width to said initial band,

15 said second RF conversion means comprises means for converting substantially all signals within said intermediate band to signals whose energy is concentrated within said initial band, so as to provide said third video signal within said initial band,

 said initial band being composed of all of the frequencies between one of:

- 1) 60 Mhz and 72 Mhz, and
- 2) 54 Mhz and 72 Mhz.

17. A system as defined in claim 13 wherein:

substantially all of the energy of said first video signal is concentrated at frequencies below 6 Mhz,

said first electronic device (1) further includes a switch with
5 at least first and second settings,

said first RF conversion means responds to the setting of said switch to determine the frequencies at which the energy of said second video signal is concentrated, concentrating substantially all of the energy of said second video signal at frequencies within a first 6 Mhz intermediate band when said switch is at said first setting, and within a second 6 Mhz intermediate band when said switch is at said second setting, said first intermediate band being adjacent to and below said second intermediate band, and

said second RF conversion means comprises means for converting substantially all signals within a third intermediate band to signals whose energy is concentrated within an output band above 54 Mhz, so as to provide said third video signal within said output band, said third intermediate band consisting of all frequencies within said first and said second intermediate bands, the width of
15 said output band being equal to the width of said third intermediate band.

18. A system as defined in claim 13 wherein:

said first RF conversion means comprises means for simultaneously providing both a first supplemental video signal and said

second video signal, substantially all of the energy of said first
5 supplemental video signal being concentrated within a 6 Mhz
supplemental band, substantially all of the energy of said second
video signal being concentrated in a 6 Mhz band above and adjacent
to said supplemental band, said first supplemental video signal
having substantially the same information content as said second
10 video signal,

said first transmitting means further comprises means for
simultaneously transmitting both said first supplemental video
signal and said second video signal onto the network,

15 said second RF conversion means comprises means for converting
substantially all signals within an intermediate band to signals
within an output band above 54 Mhz, so as to provide said third
video signal and a second supplemental video signal within said
output band, said intermediate band consisting of the frequencies
of said first supplemental band and the 6 Mhz immediately above,
20 said second supplemental video signal having substantially the same
information content as said first supplemental video signal.

19. A system as defined in claim 13 wherein:

said first RF conversion means comprises means for providing
a supplemental video signal in addition to said second video signal
so as to provide an alternative in the event that broadcast energy
5 interferes with said second video signal, substantially all of the
energy of said supplemental video signal being concentrated within
a 6 Mhz supplemental band different from the band of said second

video signal, said supplemental video signal having substantially the same information content as said second video signal,

10 said second RF conversion means further comprises means for converting substantially all signals within said supplemental band to signals above 54 Mhz, so as to provide a second supplemental video signal, the energy of said second supplemental signal being concentrated within one of two adjacent 6Mhz channels above 54 Mhz,
15 said second supplemental video signal having substantially the same information content as said first supplemental video signal.

20. A system as defined in claim 13 wherein:

 said second electronic device (15) further includes special filtering means for filtering one of:

- 1) said second video signal, and
- 2) said third video signal,

 said special filtering means attenuating signal energy at one of:

1) frequencies between 4 Mhz and 4.5 Mhz above the picture carrier, and

2) frequencies within the 1.25 Mhz band immediately below the
10 picture carrier,

 so as to reduce bandwidth, and so reduce a likelihood of interference from broadcast signals.

21. A communications system that includes a network of wiring, a plurality of ports ordinarily used for connection of telephone equipment to said network, and an interface to a

telephone system, said ports being located in different areas, said
5 network comprising a plurality of 2-wire conductive paths connect-
ing said ports to said interface, the communications system
including a first one of said ports and an electronic device (1)
located in a first area, and a second one of said ports and a
television receiver (30) located in a second area, the system
10 further including an apparatus (2) located in said first area, said
apparatus (2) supplying a first video signal and responding to
infrared light signals received from a first infrared light
transmitter for determining the operational mode of said apparatus,
said apparatus being out of range of said light transmitter when
15 said transmitter is located in said second area, wherein:

a) said electronic device (1) located in said first area
includes:

receiving means connected to said apparatus (2) for receiving
said first video signal;

20 signal processing means for providing a second video signal,
said second video signal having a higher energy level than said
first video signal and substantially the same information content
as said first video signal; and

first transmitting means, connected to said first one of said
25 ports, for transmitting said second video signal onto the network,
said first transmitting means comprising first filtering means for
presenting a high impedance to signals whose energy is concentrated
at frequencies below the highest frequency used for communication

by ordinary telephone devices, while allowing said second video
signal to transmit substantially unaltered;

b) said television receiver (30) located in said second area
includes:

first recovering means, connected to said second one of said
ports; for recovering said second video signal from the network,
said first recovering means comprising second filtering means for
presenting a high impedance to signals whose energy is concentrated
at frequencies below the highest frequency used for communication
by ordinary telephone devices, while allowing said second video
signal to transmit substantially unaltered;

first converting means for converting infrared light
radiation to a first series of electrical impulses;

first representing means for representing said first series
of electrical impulses as a second series of electrical impulses,
information content of said second series being substantially the
same as the information content of said first series, substantially
all of the energy of said second series being concentrated at
frequencies above the highest frequency used for communication by
ordinary telephone devices; and

second transmitting means, connected to said second one of said
ports, for transmitting said second series onto the network, said
second transmitting means comprising third filtering means for
presenting a high impedance to signals whose energy is concentrated
at frequencies below the highest frequency used for communication

by ordinary telephone devices, while allowing said second series
55 to transmit substantially unaltered;

c) said electronic device (1) located in said first area
further includes:

second recovering means, connected to said first one of said
ports, for recovering said second series of electrical impulses
60 from the network wiring, said second recovering means comprising
fourth filtering means for presenting a high impedance to signals
whose energy is concentrated at frequencies below the highest
frequency used for communication by ordinary telephone devices,
while allowing said second series to transmit substantially
65 unaltered;

second representing means for representing said second series
of electrical impulses as a third series of electrical impulses,
information content of said third series being substantially the
same as the information content of said second series, and

70 second converting means for converting said third series of
electrical impulses to infrared light radiation, said second
converting means creating a light pattern with substantially the
same characteristics as the light pattern created by the infrared
light radiation in the second area.

22. A communications system as set forth in claim 21, wherein:
said electronic device (1) further includes means for blocking the energy of said second video signal from transmission to said second representing means.

23. A communications system as set forth in claim 21, further including:

a second infrared light transmitter that includes one of:

1) means for issuing light patterns, other than the those that control the parameters of said television receiver (30), for determining the parameters of other devices; and

2) means for reissuing the light patterns of other infrared transmitters designed to control other devices, after reception of those patterns in a cooperative learning process with said other infrared transmitters.

24. A communications system as set forth in claim 21, wherein:

said signal processing means included in said electronic device (1) comprises first RF conversion means for converting said first video signal to a signal with a higher energy level whose energy is concentrated at frequencies below 54 Mhz, so as to provide said second video signal.

25. A communications system as set forth in claim 24, wherein:

said television receiver (30) further includes special filtering means for filtering said second video signal, said special filtering means attenuating signal energy at one of:

1) frequencies between 4 Mhz and 4.5 Mhz above the picture carrier, and

2) frequencies within the 1.25 Mhz band immediately below the picture carrier,

so as to reduce bandwidth, and so reduce a likelihood of interference from broadcast signals.

26. A communications system as set forth in claim 24, further comprising processing means for processing said second video signal to produce a third video signal, and wherein:

said television receiver (30) further includes special filtering means for filtering said third video signal, said special filtering means attenuating signal energy at one of:

1) frequencies between 4 Mhz and 4.5 Mhz above the picture carrier, and

2) frequencies within the 1.25 Mhz band immediately below the picture carrier,

so as to reduce bandwidth, and so reduce a likelihood of interference from broadcast signals.

27. A communication system as set forth in claim 24, wherein:

said first RF conversion means further comprises means for providing a supplemental video signal for the purposes of offering

an alternative in the event that broadcast interference disrupts
5 reception of said second video signal by said television trans-
ceiver (30), substantially all of the energy of said supplemental
video signal being concentrated within a 6 Mhz wide supplemental
band, said supplemental band covering different frequencies than
the frequencies of said second video signal, said supplemental
10 video signal having substantially the same information content as
said second video signal, and

said first transmitting means further comprises means for
transmitting said supplemental video signal onto the network.

28. A communications system as set forth in claim 24,
wherein:

said television receiver (30) further includes second RF
conversion means for converting said second video signal to a
signal whose energy is concentrated at different frequencies, so
as to provide a third video signal, and tuning means for tuning to
signals above 54 Mhz, said tuning means being separate and distinct
from said second RF conversion means, said third video signal
having the same information content as said second video signal,
10 substantially all the energy of said third video signal being
concentrated at one of:

- a) frequencies above 54 Mhz, and
- b) frequencies below 6 Mhz.

29. A communications system that includes a network of wiring, a plurality of ports ordinarily used for connection of telephone equipment to said network, and an interface to a telephone system, said ports being located in different areas, said network comprising a plurality of 2-wire conductive paths connecting said ports to said interface, the communications system further including a first one of said ports and a first apparatus located in a first area, said first apparatus providing a first video signal, a second one of said ports and a second apparatus located in a second area, said second apparatus providing a second video signal, the energy of said first video signal concentrated at substantially the same frequencies as the energy of said second video signal, and a third one of said ports and a television receiver located in a third area, said communications system further comprising:

a) a first electronic device located in said first area including:

means, connected to said first apparatus, for receiving said first video signal;

first signal processing means including a first amplifier for providing a third video signal, said third video signal having a higher energy level than said first video signal and substantially the same information content as said first video signal;

first transmitting means, connected to said first one of said ports, for transmitting said third video signal onto the network,

said first transmitting means comprising first filtering means for presenting a high impedance to signals whose energy is concentrated at frequencies below the highest frequency used for communication by ordinary telephone devices, while allowing said third video signal to transmit substantially unaltered;

b) a second electronic device located in said second area including:

means, connected to said second apparatus, for receiving said second video signal;

second signal processing means including a second amplifier for providing a fourth video signal, said fourth video signal having a higher energy level than said second video signal and substantially the same information content as said second video signal; and

second transmitting means, connected to said second one of said ports, for transmitting said fourth video signal onto the network, said second transmitting means comprising second filtering means for presenting a high impedance to signals whose energy is concentrated at frequencies below the highest frequency used for communication by ordinary telephone devices, while allowing said fourth video signal to transmit substantially unaltered;

c) a third electronic device located in said third area including:

recovering means, connected to said third one of said ports,
50 for recovering said third and fourth video signals from the
network, said recovering means comprising third filtering means
for presenting a high impedance to signals whose energy is
concentrated at frequencies below the highest frequency used for
communication by ordinary telephone devices, while allowing said
55 third and said fourth video signals to transmit substantially
unaltered;

third transmitting means, connected to said television
receiver, for transmitting said third and fourth video signals to
said television receiver;

60 and wherein at least one of said first electronic device and
said second electronic device further includes one of:

65 1) filter means having at least first and second operational
settings, for blocking transmission of electrical energy con-
centrated within a particular frequency band to the network when
at said first operational setting, and permitting transmission of
electrical energy concentrated within said particular frequency
band to the network when at a second operational setting, said
filter means further including means for detecting DTMF (dual tone
multi-frequency) signals, said filter means adopting one of said
70 first and second operational settings in accordance with detection
of special sequences of DTMF signals; and

2) switching means including first and second operational
modes, said means preventing the supply of power to the amplifier
included in the electronic device that includes said switching

75 means when at a first operational mode, and permitting the supply
of power to the amplifier included in the electronic device that
includes said switching means when at a second operational mode,
said switching means further including means for detecting signals
transmitted across standard electrical power wiring and adopting
80 said first or said second operational mode in accordance with
information contained in said signals transmitted across said power
wiring.

30. A communications system that includes a network of
wiring, a plurality of ports ordinarily used for connection of
telephone equipment to said network, and an interface to a
telephone system, said ports being located in different areas, said
network comprising a plurality of 2-wire conductive paths connect-
5 ing said ports to said interface, the communications system further
including a first one of said ports and a first apparatus located
in a first area, said first apparatus supplying a first video
signal, and a second one of said ports and a television receiver
located in a second area, said communications system further
10 including:

a) a first electronic device located in said first area and
including:

receiving means, connected to said first apparatus, for
15 receiving said first video signal,

signal processing means for providing a second video signal, said second video signal having a higher energy level than said second video signal and substantially the same information content as said first video signal, and

20 first transmitting means, connected to said first one of said ports, for transmitting said second video signal onto the network, said first transmitting means comprising first filtering means for presenting a high impedance to signals whose energy is concentrated at frequencies below the highest frequency used for communication by ordinary telephone devices, while allowing said second video signal to transmit substantially unaltered;

b) a second electronic device located in said second area and including:

recovering means, connected to said second one of said ports, for recovering said second video signal from the network, said recovering means comprising second filtering means for presenting a high impedance to signals whose energy is concentrated at frequencies below the highest frequency used for communication by ordinary telephone devices, while allowing said second video signal to transmit substantially unaltered; and

35 second transmitting means, connected to said television receiver, for transmitting said second video signal to said television receiver;

c) wherein at least one of said first and second electronic
40 devices further includes:

a supplemental port for connecting ordinary telephone
equipment, and a path for transmission of electrical energy, said
path connecting between said supplemental port and one of said
first and second ports, said path including filter means for
45 allowing energy concentrated at frequencies used by ordinary
telephone devices to pass substantially unaltered while attenuat-
ing energy at frequencies wherein the energy of said second video
signal is concentrated, said filter means diverting energy of said
second video signal away from said telephone equipment.

31. A communication system that includes an electronic
switching device that provides an interface to a telephone system,
a first port ordinarily used for connection of telephone equipment
and an apparatus located in a first area, said apparatus supplying
a first video signal, a second port ordinarily used for connection
5 of telephone equipment and a television receiver located in a
second area, the communication system further including a first
two-wire conductive path connecting said first port to said
switching device, and a second two-wire conductive path connecting
10 said second port to said switching device, the communication system
further including:

a) a first electronic device located in said first area
including:

receiving means connected to said first apparatus, for
15 receiving said first video signal,

signal processing means for providing a second video signal,
said second video signal having a higher energy level than said
first video signal and substantially the same information content
as said first video signal, and

20 first transmitting means, connected to said first one of said
ports, for transmitting said second video signal onto the network,
said first transmitting means comprising first filtering means for
presenting a high impedance to signals whose energy is concentrated
at frequencies below the highest frequency used for communication
25 by ordinary telephone devices, while allowing said second video
signal to transmit substantially unaltered;

b) a second electronic device located in said second area
including:

recovering means, connected to said second one of said ports,
30 for recovering said second video signal from the network, said
recovering means comprising second filtering means for presenting
a high impedance to signals whose energy is concentrated at
frequencies below the highest frequency used for communication by
ordinary telephone devices, while allowing said second video signal
35 to transmit substantially unaltered; and

second transmitting means, connected to said television
receiver, for transmitting said video signals to said television
receiver,

c) a connecting device (52) interposed along said first 2-wire
40 conductive path, including:

a first low-pass filter for allowing signals at frequencies
used by ordinary telephone devices to transmit along said first
path unaltered while blocking signals transmitted at frequencies
at which the energy of said second video signal is concentrated,

45 said connecting device also being interposed along said second
2-wire conductive path, and including a second low-pass filter for
allowing signals at frequencies used by ordinary telephone devices
to transmit along said path unaltered while blocking signals
transmitted at frequencies at which the energy of said second video
50 signal is concentrated,

said connecting device further including a third conductive
path connecting said first conductive path and said second
conductive path, and including a high pass filter for blocking
passage of signals concentrated at frequencies used by ordinary
55 telephone devices, and enabling electrical energy of said second
video signal to pass substantially unaltered, for allowing
transmission of said second video signal from said first port to
said second port, while maintaining the separation of telephone
communications signals between said switching device and each of
60 said first port and said second port.